

model: **Basic refrigeration-GTAC311238**

Basic Refrigeration Trainer

- * The Refrigerator temperature, pressure, defrosting automatic control, fault diagnosis of configuration testing and is available training.
- * Mechanical part of high pressure, low pressure lines must be distinguished by the naked eye, and each element has a thermometer depends on changes in the cycle of refrigeration equipment and Molier-diagram drawing in drawing part, is available for experimentation and practice.
- * Operable device without the control unit via the control switch of the machine unit.
- * Mechanical and graphics module are integrated and Mechanical part and graphics consists of one body. Refrigeration Training Equipment operation circuit is consists of wiring and jacks. This equipment is possible operating test and practice. Equipment in the front of the mechanical part of the main components are arranged in vertical machine should be added to replace the graphics module.
- * A condenser fan motor is controlled through a pressure and temperature as is possible, it is possible to program the computer.
- * There is watt hour meter, can measure the amount of power consumed by the device during operation of the device.
- * Communication with a computer with an Ethernet system is possible and must be controlled by a computer program.
- * Overload cut-off when an abnormality occurs during operation temperature, pressure, freezing of teaching equipment, the operation of the pressure switch, safe driving another circuit configuration using the power cutoff device to another of the control unit and the machine part is possible and There is capable of fault diagnosis.
- * Enable the output of data for fault diagnosis of the machine unit.
- * If the structure may be an alarm is output when an abnormality occurs in each part of the machinery in a computer program, the contents of the alarm can be confirmed, the user is dealing
- * This equipment is possible operating test and practice. able to Data auto-save and auto drawing P-I diagram. Monitor and operate computer controlled machine part (ON-OFF function), is available for fault diagnosis.
- * Mechanical unit
 - Compressor: 1/2HP, single phase 220V, with control box, compressor type: reciprocating compressor, refrigerant used: R-134a
 - Condenser: 1/2HP, single-phase 220V, condenser type: air-cooled, fan motor: 9W, fan: 1ea included. It is possible to check the phase change through the transparent pipe, including the transparent pipe holder.
 - Evaporator: 1/3HP, single-phase 220V, condenser type: air cooling, fan motor: 9W, fan: 1ea included. It is possible to check the phase change through the transparent pipe, including the transparent pipe holder.
 - Receiver: 1/2HP, internal structure and refrigerant can be checked, and it is made strong enough for pressure
 - Liquid separator: 1/2HP, internal structure and refrigerant can be checked, and it is made strong enough for pressure
 - Solenoid valve: 3/8" nut fastening type, 220V, 50~60Hz, HFC others, type: direct acting
 - Filter dryer: 3/8" nut fastening type or welding type
 - Sight glass: 3/8" nut fastened or welded,
 - Expansion valve: 3/8", 1/2" nut fastening type, or welding type Refrigerant used: R-134a
 - Charging nipple: 1/4
 - Pressure gauge: refrigeration oil gauge, high pressure 35bar, low pressure 15bar, measuring refrigerant: R-134A size: 68mm dial
 - Piping: It should be possible to check the internal phase change with a transparent pipe.



* Automatic control

- Relay: 8 pin: 3ea
- NFB: Rated current: 15A, Rated breaking capacity: 220V/5kA
- Magnetic switch: Rated current: 9A, Rated voltage: DC24V
- Thermal relay: 9~12A,
- Watt meter: digital type
- Lamp: Red, Green, Yellow, White
- LPS, HPS, DPS: digital pressure device, low pressure side high pressure side: 1.5 MPa 3.3 MPa
- Select switch: 1a1b
- Buzzer: DC24V
- Toggle switch: 1a, 1b
- Timer: 60sec. DC24V , 8pin
- Push Button: 1a1b
- Digital thermometer: 7EA (temperature control type)
- Indicator light: red, green
- Graphic module: 800 * 600 aluminum
- Auto module: 1000 * 600 aluminum

* Data board

- Refrigeration Trainer Control Board
- Removable Micro controller Module (Replacement type)
- 16-Channel Sensor interface (Option : Temperature, Pressure, Flowmeter, Airflowmeter, Ampere :)
- 16-Channel power relay on/off control.
- 10/100 Ethernet Interface (RJ-45) (Option : Wi-Fi, Bluetooth, Zigbee, USB, RS-232, RS-485, RS-422, CAN)

* Software program

- Network control system using ethernet communication.
- Machine parts are controlled by using a switch of the program and data values of the sensor by setting the control condition.
- Mechanical diagram displays the sensor values and converter unit option.
- Output of the sensor data in the graph and save files and print output.
- Mechanical parts diagram displays the operation status of motion animation.
- Output of the sensor data in the mollier diagram graph and save image files and print output.
- The Mollier diagram graph simulated sensor data, and to compare the measured sensor data analysis

* size is around (LxWxH) - 180 x 720 x 185cm

* At least 2 years warranty with parts & labor